

(19)



JAPANESE PATENT OFFICE

PATENT ABSTRACTS OF JAPAN

(11) Publication number: 2003061572 A

(43) Date of publication of application: 04.03.03

(51) Int. Cl

A23B 4/08

A23D 9/00

A23L 1/325

(21) Application number: 2001290067

(22) Date of filing: 21.08.01

(71) Applicant: TSUKISHIMA SHOKUHIN KOGYO KK

(72) Inventor: KATO HIROBUMI
SHOJI SHIGERU
EBARA HIROSHI

(54) FAT OR FATTY OIL COMPOSITION FOR
COATING FISH MEAT

(57) Abstract:

PROBLEM TO BE SOLVED: To provide a fat or fatty oil composition which is used for coating fish meats and can improve the appearances, such as hue and surface state, of a fish food using fresh fish meat consisting mainly

of tuna red meat.

SOLUTION: This fat or fatty oil composition for coating fish meats is added with 0.05 to 1 wt.% of a polyglycerol unsaturated fatty acid ester and/or a glycerol unsaturated organic acid fatty acid ester to a liquid oil.

COPYRIGHT: (C)2003,JPO

BEST AVAILABLE COPY

* NOTICES *

Japan Patent Office is not responsible for any damages caused by the use of this translation.

1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. **** shows the word which can not be translated.
3. In the drawings, any words are not translated.

DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001]

[The technical field to which invention belongs] This invention relates to the fats-and-oils constituent for fish meat coating which coats the fresh fish uncooked meat which is mainly concerned with tuna lean meat.

[0002]

[Description of the Prior Art] fresh fish uncooked meat -- cut fish -- carrying out -- the ingredient of sliced raw fish, seafood used in sushi toppings, and a bowl -- although mostly used to material etc., when there is nothing **** immediately, the surface of fish meat dries the fish meat used as cut fish, mouthfeel gets dry, or a color tone fades and appearance worsens. As this preventive measure, generally vegetable oil and fish oil are mixed with cut fish, or it applies to the surface. However, although desiccation of cut fish could be prevented when salad oil was applied to the surface, there was a defect to which a surface oil droplet is uneven and will be in a sweating condition, a color tone is also somber and appearance worsens.

[0003] For example, a fish meat processing food-grade **** constituent and a fish meat processed food mix fats and oils on the fish meat plow body, and improve the appearance and the flavor of little fish meat (JP,2000-060495,A). Moreover, spreading etc. is carried out for mixture with the marine-animal-oil fat or edible vegetable oil and fat with which the manufacturing method contains eicosapentaenoic acid and/or docosa-hexaenoic acid to the fish meat food which raised flavor, and a list on the fish meat surface, and mouthfeel and flavor are improved (JP,2001-008667,A). neither describes the appearance of fish meat cut fish, but is now -- the present condition is that the improvement is not carried out.

[0004]

[Problem(s) to be Solved by the Invention] About the fish meat used as cut fish in view of the above problems, immediately, ****, this invention is offering the fats-and-oils constituent for fish meat coating which can obtain the good fish meat food of appearance, such as a color tone of fish meat cut fish, and a surface state, even when there is nothing.

[0005]

[Means for Solving the Problem] this invention persons complete a header and this invention for an oil which coated fish meat with an emulsifier of partial saturation polyglyceryl fatty acid ester or/and partial saturation glycerol organic-acid fatty acid ester by carrying out the amount combination of specification being uniform, and meat becoming skillful redness to a liquefied oil.

[0006]

[Embodiment of the Invention] The salad oil which vegetable fat and oil, such as an soybean, the rapeseed, a cone, cotton seed oil, a sunflower, safflower oil, and rice bran oil, is mentioned, and there is a fluidity under refrigeration conservation as a liquefied oil used for this invention, and does not produce nebula is desirable. Moreover, if this condition is fulfilled, the liquefied oil classified from the fats and oils which carried out hydrogenation hardening can also be used.

[0007] The emulsifier used for this invention needs to dissolve in a liquefied oil easily, and needs to improve the hydrophilicity of fats and oils. When it mixes with fish meat cut fish, the fats and oils serve as a fine oil droplet moderately, and adhere to the fish meat surface at homogeneity. The fatty acid ester which polyglyceryl fatty acid ester and glycerol organic-acid fatty acid ester are

BEST AVAILABLE COPY

mentioned, and uses unsaturated fatty acid, such as oleic acid, as a principal component as what fulfills those conditions is desirable. Especially in polyglyceryl fatty acid ester, the polymerization degree of a glycerol has the coating effect the high fatty acid ester of whenever [partial saturation] excelled [effect] or more in three. Moreover, glycerol organic-acid fatty acid ester points out what organic acids, such as a citric acid, a succinic acid, and a diacetyl tartaric acid, combined with the mono-glycerine fatty acid ester. One sort or two sorts or more of use is possible for these emulsifiers.

[0008] One or less % of the weight 0.05 % of the weight or more is suitable for the loadings to the fats and oils of these emulsifiers to a liquefied oil. If loadings are less than 0.05 % of the weight, the oil droplet adhering to the fish meat surface does not become fine, but will be in the sweating condition that an oil droplet is large, like salad oil. Moreover, since the portion by which coating is thickly carried out to fats and oils increases, there is a defect in which a surface color tone is also somber. On the other hand, if 1 % of the weight is exceeded, the oil droplet on the surface of fish meat will become fine too much, and there is a defect in which the surface becomes cloudy with tuna lean meat.

[0009] The fats-and-oils constituent which consists of the liquefied oil and emulsifier of this invention can be prepared by dissolution mixing at the temperature more than the melting point of an emulsifier. Moreover, initial-complement addition of vitamin E, the vitamin-C fatty acid ester, etc. can be carried out as an anti-oxidant of fats and oils.

[0010]

[Example] Hereafter, this invention is explained to details, giving an example and the example of a comparison.

[0011] Preparation of cut fish was immersed in 38-degree C 3% salt water for 30 seconds in the frozen meat of big eye tuna lean. After carrying out the liquid end of the immersed meat immediately, it cut into 5mm thickness with the kitchen knife. The method of fats-and-oils coating added each fats and oils of a room temperature by a unit of 3% of the weight to the cut cut fish, and it mixed them by the game so that fats and oils might adhere to the whole surface. It put one of this in order at a time so that cut fish might not lap into a hermetic container, and it was kept in the dark place of 5-degree-C refrigerator on the 1st.

[0012] Dissolution mixing for 0.05 % of the weight of oils of the PENTA glycerol triolein acid ester (TAIYO KAGAKU CO., LTD. make) was carried out at the example 1 rapeseed-oil 100 weight section, and the fats-and-oils constituent was obtained. 3g of this fats-and-oils constituent was poured out to 100g of tuna cut fish cut beforehand, it mixed immediately by the game, and fish meat food was obtained.

[0013] Dissolution mixing for 0.2 % of the weight of oils of the PENTA glycerol triolein acid ester (TAIYO KAGAKU CO., LTD. make) was carried out at the example 2 rapeseed-oil 100 weight section, and the fats-and-oils constituent was obtained. Tuna cut fish was hereafter coated like the example 1, and fish meat food was obtained.

[0014] Dissolution mixing for 0.2 % of the weight of oils of the glycerol citric-acid mono-oleate (Riken Vitamin Co., Ltd. make) was carried out at the example 3 rapeseed-oil 100 weight section, and the fats-and-oils constituent was obtained. Tuna cut fish was hereafter coated like the example 1, and fish meat food was obtained.

[0015] Dissolution mixing for 1 % of the weight of oils of the PENTA glycerol triolein acid ester (TAIYO KAGAKU CO., LTD. make) was carried out at the example 4 rapeseed-oil 100 weight section, and the fats-and-oils constituent was obtained. Tuna cut fish was hereafter coated like the example 1, and fish meat food was obtained.

[0016] Dissolution mixing for 1 % of the weight of oils of the glycerol citric-acid mono-oleate (Riken Vitamin Co., Ltd. make) was carried out at the example 5 rapeseed-oil 100 weight section, and the fats-and-oils constituent was obtained. Tuna cut fish was hereafter coated like the example 1, and the fish meat product was obtained.

[0017] Tuna cut fish was coated only with example of comparison 1 rapeseed oil like the example 1, and the fish meat product was obtained.

[0018] Dissolution mixing for 0.2 % of the weight of oils of the diglycerol mono-oleate (Riken Vitamin Co., Ltd. make) was carried out at the example of comparison 2 rapeseed-oil 100 weight

section, and the fats-and-oils constituent was obtained. Tuna cut fish was hereafter coated like the example 1, and fish meat food was obtained.

[0019] Evaluation of an example and the example of a comparison observed the surface state (adhesion condition of fats and oils) while measuring the color tone (a value) of the fish meat food after storage with the color color difference meter by Minolta Co., Ltd. at 5 degrees C on the 1st. The result was shown in the 1st table. Evaluation of a surface state has uniform O:oil droplet, and meat is skillful redness. O : an oil droplet is uniform and, as for meat, redness remains. **: An oil droplet is uneven and, as for meat, redness remains. x: The oil droplet was uneven and meat presupposed that it is the somber redness.

[0020]

[A table 1]

	実施例 1	実施例 2	実施例 3	実施例 4	実施例 5	比較例 1	比較例 2
a 値	13.2	13.6	13.6	13.4	12.6	11.8	13.4
表面状態	○	○	○	○	○	x	△

[0021] From the comparison of the example shown in the 1st table, and the example of a comparison, by using the fats-and-oils constituent of this invention, the redness of fish meat food can be made clear and the adhesion condition of fats and oils can be improved.

[0022]

[Effect of the Invention] By using the fats-and-oils constituent for fish meat coating of this invention, as compared with the case where conventional salad oil is used, an oil droplet adheres to the fish meat surface at homogeneity, and the fish meat food which presents the flesh color of the skillful redness of fish meat original can be obtained.

[Translation done.]

* NOTICES *

Japan Patent Office is not responsible for any damages caused by the use of this translation.

1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. **** shows the word which can not be translated.
3. In the drawings, any words are not translated.

CLAIMS

[Claim(s)]

[Claim 1] A fats-and-oils constituent for fish meat coating characterized by blending an emulsifier of partial saturation polyglyceryl fatty acid ester or/and partial saturation glycerol organic-acid fatty acid ester to a liquefied oil.

[Claim 2] A fats-and-oils constituent for fish meat coating according to claim 1 characterized by loadings of an emulsifier being 0.05 - 1 % of the weight.

[Translation done.]

BEST AVAILABLE COPY